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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/577,889

03/02/2007

Wolfgang Greiser

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EXAMINER

TORRES VELAZQUEZ, NORCA LIZ

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

07/01/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/577,889	<b>Applicant(s)</b> GREISER ET AL.	
	<b>Examiner</b> Norca L. Torres-Velazquez	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 3/02/07.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. It is noted herein that the claimed term “reinforcement-free” is interpreted herein by the Examiner as a non-woven material that does not include a reinforcing material such as filaments, scrim, woven meshes and the like, in particular by embedding glass scrim or longitudinal filaments of glass. (Refer to [0008] of Specification).

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5 and 8-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are rendered indefinite because it is not clear what is meant by the “shrinkage force is equal to the strains” or “the nonwoven has a shrinkage force which counteracts the strains which arise in the subsequent treatment operations which take place under heat”. It seems as the shrinkage force is dependent on a variable that is not part of the structure of the material being claimed.

#### ***Claim Rejections - 35 USC § 102/103***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**6. Claims 1-7 and 13-14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over HEIDEL et al. (US 6,436,510 B1).**

HEIDEL et al. relates to shingles and roof surfaces. (Col. 1, lines 3-4) The reference teaches spunbonded webs that preferably consist of melt-spinnable polyesters such as polyethylene terephthalate. (Refer to Col. 1, lines 65-67; Col. 2, lines 10-42) After production, the webs are consolidated mechanically, for example by needling, or thermally by calendering at elevated temperature and pressure. (Col. 2, lines 51-53) In a further embodiment, the webs which have been mechanically consolidated by needling and/or by means of fluid jets can optionally be end-consolidated by means of a chemical binder, for example a chemical binder based on polyacrylate. (Col. 3, lines 21-25)

It is the Examiner's position that the claimed reinforcement-free, bonded non-woven of polyester filaments which is bound by a binder is met by the prior art of HEIDEL et al. It is noted herein that on Col. 5, lines 10-12; the reference teaches that in a further embodiment the invention can further comprise reinforcing layers. Thus, it is the Examiner's position that the exclusion of reinforcing layers to have a "reinforcement-free, bonded non-woven" is encompassed by HEIDEL et al.

Although HEIDEL et al. does not explicitly teach the claimed latent shrinkage force it is reasonable to presume that this property is inherent to the nonwoven of HEIDEL et al. Support for said presumption is found in the use of like materials (i.e. a spunbonded nonwoven that consists of melt-spinnable polyester, that is bonded by similar methods and also includes a

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binder; that is further used in roofing applications). The burden is upon Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of a latent shrinkage force of 2 N/5cm to 20 N/5 cm would obviously have been present once the HEIDEL et al. product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977) as to the providing of this rejection made above under 35 USC 102.

With regards to claims 2-4, the reference meets the types of bonding claimed.

***Claim Rejections - 35 USC § 103***

**7. Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over HEIDEL et al. (US 6436510 B1) and further evidenced by BARAVIAN et al. (US 5118550).**

HEIDEL et al. is silent to stretching the nonwoven.

It is the Examiner's position that such step would have been obvious to one having ordinary skill in the art of roofing materials as it is known to apply tension during consolidation stages of a nonwoven material in order to obtain a maximum modulus of elasticity in the direction in which the tension is applied. This could be evidenced by BARAVIAN et al. (Refer to Col. 7, lines 24-44) It is further noted that while BARAVIAN et al. uses reinforcing materials, the Examiner is not bodily incorporating the structure of BARAVIAN et al. but providing evidence that the use of a stretching step in the construction of a nonwoven material such as that of HEIDEL et al. will achieve a similar result. A reference may be understood by the artisan as suggesting a solution to a problem that the reference does not discuss. See KSR, 137 S. Ct. at 1742, 82 USPQ2d at 1397 "Common sense teaches... that familiar items may have obvious uses beyond their primary purposes, and in any cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle. ... A person of

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ordinary skill is also a person of ordinary creativity, not an automaton.”). Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-5:00 pm and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Larry Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Norca L. Torres-Velazquez/  
Primary Examiner, Art Unit 1794

June 29, 2009